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Future System Operation
Office of Gas and Electricity Markets
10, South Colonnade
Canary Wharf London
E14 4PU

28 September 2021

Dear Sir, Madam,

Interconnector response to Energy Future System Operator Consultation

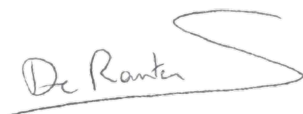
Thank you for the opportunity to respond to this consultation.

Interconnector Limited ("INT" or "we") welcomes this consultation. Whole energy system thinking will play a vital role in helping achieve net zero targets.

Our response to the specific consultation questions are outlined in the Annex to this letter. If you wish to clarify anything please do not hesitate to contact me or my colleague Pavanjit Dhesi, Regulatory Affairs Manager (Pavanjit.dhesi@interconnector.com).

We look forward to continuing engaging with you and the industry in creating appropriate whole system thinking to meet consumer's current and future energy needs.

Yours faithfully,



Steven De Ranter
Managing Director

Annex 1: Interconnector response to Energy Future System Operator Consultation

1. Do you agree that net zero will create the need for new technical roles in the electricity and gas systems, and require a new approach to energy system governance?

We do agree the transition to net zero requires a much more integrated energy system. This does increase operational and planning complexity across both electricity and gas. It is right therefore to make resources available for "whole system thinking". For long term forecasting, network development and sector coupling there will need to be greater cooperation and coordination across the sectors.

Regarding Governance, please see our response to question 2.

2. Do you agree that the establishment of a Future System Operator is needed to fulfil the kinds of technical roles needed to drive net zero?

In your consultation, it is proposed to establish a separate body, the Future System Operator (FSO), to address these whole system and long term planning challenges. Would it be possible to achieve the same results through consistent obligations on the Electricity System Operator (ESO) and Gas SO to cooperate with each to produce a combined/consistent output, with regulatory oversight by Ofgem and policy guidance by BEIS? We are of the impression that there might be an opportunity to first reinforce those obligations, and, only if the results are ineffective, to set up an integrated "future system planner" covering gas, electricity and potentially other energy vectors.

We think there are strong benefits to retaining day to day management of the gas transportation system within the gas transmission operator (see our response to question 10), and do not see the needs case for transferring these tasks out of National Grid Gas (NGG). This is different to the ESO where the operational and legal separation seems more suitable given the nature of the electricity system and how the daily operations are organised.

Referring to the parallel consultation on Code Reform, we are supportive of BEIS/Ofgem's initiative on code governance to help deliver net zero targets. We also welcome more strategic direction and active participation from Ofgem in Energy codes. It is important that strategic direction and planning are retained within BEIS/Ofgem responsibilities given these functions will cover/influence fundamental policy objectives related to security of supply, energy transition, affordability, trade etc. We do not support an independent FSO being delegated strategic function tasks; the FSO's role should strictly remain of an advisory nature.

In any case, under any governance model, the roles, responsibilities and accountabilities must remain clear and in line with legislation. The institutional framework should remain transparent, objective and efficient for all stakeholders and business parties operating in the GB energy market.

3. Do you agree that a Future System Operator should have roles in both the electricity and gas systems?

As noted in our response to question 2, it is unclear with respect to the ESO responsibilities, if a further carve-out will provide additional value, given legal obligations already separate the functions within National Grid and the ESO is subject to specific regulation.

The case for including gas within the remit of an FSO is weaker at this stage given we do not see the same level of gas network investment and due to the fact that day to day

management of gas operations by the transmission network owner has many benefits (as recognised in the consultation).

There is certainly a case for coordinated long term planning in terms of “whole energy system thinking”. We believe further obligations/ incentives could be created to achieve this. We therefore support the idea of a transitional approach with a focus firstly on the electricity side. With respect to gas, any integrated SO role in gas should be limited to long term planning and forecasting. That is only if obligations on the relevant parties (ESO and Gas TSO) to cooperate with each to produce a combined/consistent output in long term network planning and forecasting prove to be ineffective.

It is important also that, if the FSO model includes gas, that gas gets sufficient attention and resource devoted to it. The FSO would need to ensure its functions and responsibilities for gas (limited to forecasting and system planning) are taken as seriously as those in electricity.

Similarly, certain approaches (e.g. modelling tools, adequacy assessments) that are commonly used in the electricity sector may not be suitable or transferable to the gas sector. When embarking on a “whole system thinking” mission to support network planning and NetZero, it may be advisable to review methodologies and modelling approaches to make sure they are fit for purpose.

4. Do you agree that a Future System Operator should be entirely separate from National Grid plc?

There is a need for the SOs to coordinate across sectors to produce one long term forecast, network development plan and consider sector coupling. As already noted, this may effectively be achieved through enhanced obligations/incentives imposed on the relevant parties to work together on “whole system thinking” and produce combined outputs.

We note extensive steps have already been taken in separating the National Grid ESO from the transmission operator functions under the current model. As a party in the gas sector, we do not have a clear view on the needs case or the additional value/risk a further separation of the pure ‘system operation’ part of the ESO to an entity outside of National Grid plc would bring (noting that the entities are already legally separate).

Given the benefits of retaining day to day management of the gas transportation system within the gas transmission operator (see response to question 10), it is questionable whether it would be beneficial to carve out the gas long term forecasting and system planning to an independent entity. Such a move may actually lead to inefficiencies and duplication. We therefore believe a first step should be to strengthen obligations on NGG and the ESO to work together on “whole system thinking” and produce combined outputs for long term forecasting, network development planning and sector coupling. Only if the results are ineffective, the next step could be taken to integrate the gas forecasting/ system planning into a FSO.

5. What issues are there with existing institutional arrangements in the UK energy system in relation to system-wide decision-making and planning?

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6. What examples/case studies are you aware of where net zero delivery in one part of the energy system did not adequately account for cross-system impacts or costs?

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7. Where should government focus in our efforts to improve systems thinking and coordination across the energy system?

Government/Ofgem have an important role to play in facilitating cooperation and ensuring the parties currently responsible for systems thinking in the different areas cooperate and consult each other to begin whole system thinking.

8. Do you agree that the FSO should undertake all the existing roles and functions of NGESO? If not, please explain why.

As indicated above, the ambition is to have a governance framework in place that supports the whole system thinking and sector coupling on the pathway to NetZero. This is very much a strategic planning and network development role.

As outlined above, this may effectively be achieved through enhanced obligations/incentives imposed on the relevant SOs to work together on “whole system thinking” and produce combined outputs. As indicated - one should also be mindful of potential conflicts of interests (while also noting that the ESO has already been legally separated and is subject to regulatory oversight).

Regarding the ESO, we think there is merit in distinguishing their current “daily operations and system balancing role” and the “forecasting, systems planning, and network development role”. The latter relates much more to the main objective of whole systems and cross-vector planning, while the former is quite distinct to that overall ambition.

We think there is merit in focusing on the “future systems planning” aspect, rather than changing the institutional organisation and governance of the ESO's operational role.

9. Do you agree there is a case for the FSO to undertake the long-term strategic functions outlined in Option 1? Please elaborate and provide any views on the functions we have outlined in Option 1.

The entity or entities responsible for system operations should be developing network plans, and long term forecasting. They should also be advising Government/ BEIS in how to achieve policy aims. Clearly there is a requirement for close cooperation between gas and electricity SOs. There is also the need for clear strategic direction and active participation from BEIS and Ofgem. BEIS and Ofgem should be setting the strategic direction and the SOs (or FSO) executing effective delivery plans to fulfil this.

As noted earlier, given the benefits of retaining day-to-day management of the gas transportation system within the gas transmission operator, it is questionable whether it would be beneficial to carve out the gas long term forecasting and system planning to any independent FSO. Such a move may actually lead to inefficiencies and duplication. We therefore believe a first step should be to strengthen obligations/incentives on NGG and the ESO to work together on “whole system thinking” and produce combined outputs for long term forecasting and network development, taking account of sector coupling needs. Only if the results of these outputs are ineffective, should the steps outlined in this consultation be considered to be taken forward.

10. Do you agree that there is not currently a case for the FSO to undertake all GSO roles and functions, including real-time gas system operation, as outlined in Option 2? If you do not agree, please explain why.

There does not appear to currently be a needs case to integrate gas SO functions into any FSO model. We have highlighted earlier that, with respect to gas, where a current function of the gas SO could be improved, a first step should be to consider additional obligations/ incentives on the SO. If this proves to be ineffective then, after evaluation, the long term forecasting and network planning could be integrated into a FSO.

We agree it makes sense for the transportation operator to maintain day-to-day management of the gas system. We agree that if day-to-day gas operations were separated from the TO, there is likely to be a loss of operational synergies, and this could increase gas balancing costs (given an integrated operator can ensure more efficient operations). The nature of the gas transmission system (physically moving gas from supply point to end consumer) requires active management of the grid, by operating valves and compressors across the country. There are health and safety risks associated with these operations (e.g. monitoring and management of pressures, gas quality compositions etc, flow metering, fire and gas detection), which if not correctly or timely performed may lead to very adverse effects affecting the grid infrastructure itself. This has potential consequences for the public safety and the security of supply of the gas system's end users. It seems to us that such tasks can only be performed by an integrated system operator and transmission system owner, as is currently the case.

There is also a risk of duplication and costs in splitting the real time gas system operation from the network operator. There are costs for NGG in implementing a new model and keeping up with ongoing requirements where there is overlap of responsibilities. Moving away from the integrated operations model would increase complexity for industry. For example there would be an additional interface and costs for connected parties like large end users, power stations, storage and interconnectors risking complexity and cost through duplicating relationships and agreements. The value added of integrating the gas roles into any FSO appear at this stage appear low compared to the costs and risk of splitting the role.

11. Do you have views on the proposal for an advisory role? What organisations do you consider would benefit from the provision of advice by the FSO? Who should bear the costs of providing that advice?

We agree SOs can play an important role in advising Government and Ofgem. Given the advice is targeted at meeting consumer energy needs and net zero targets in the public interest, we believe the costs in providing that advice should be borne by the state/taxpayers. The advice should be transparent and published.

12. Do you have any views on the other areas where we are considering new and enhanced roles and functions for the FSO (outlined in section 3.2)?

A comprehensive list of roles and functions is outlined in section 3.2, most of which appear appropriate. It is important that duties are assessed to be "value added" and do not create additional layers (and consequently costs) into the process.

Ultimately any FSO should be seen as a delivery function and advisor. Strategic functions, policy decisions and arbitration should be within the responsibilities of Government and Ofgem. For example an approach of giving any FSO the role of determining disputes between industry parties would only add additional layers and potential conflicts of interest. A dispute assessment role should be the responsibility of Ofgem, or via legal

challenge. We also do not support a FSO being a code manager due to the potential for conflicts of interest with its other responsibilities.

13. What are your views on our proposed characteristics and attributes of a future system operator and how the models presented would deliver against them? Are there other characteristics or attributes that we have not yet considered?

We agree with all the competencies outlined in the consultation for an effective FSO, notwithstanding our comments made earlier.

14. Are we considering the right organisation models for the FSO? And why?

As noted earlier, it is unclear to us whether an independent FSO model is needed. With respect to electricity SO responsibilities, there is already significant legal separation. Is a perceived conflict enough to justify the cost to change the institutional model? Should one distinguish between the ESO's long term forecasting and planning role versus their daily operations role to balance the electricity grid when considering the FSO opportunity?

The case for including gas within the remit of any FSO is, in any case, weaker at this stage given we do not see the same level of gas network investment. The day-to-day management of gas operations by the transmission network owner will also retain many benefits. We therefore believe additional regulatory obligations/incentives should be considered which may achieve the same outcomes as an independent FSO.

If additional obligations/incentives do not achieve the desired outcomes, the merits of an independent FSO can be considered. If an FSO is needed, we believe an independent corporate body model, classified within the public sector, with operational independence from government would be preferential given the duties/functions expected of the FSO.

15. Are we considering the right elements for the FSO's regulatory and accountability frameworks? And why?

Yes the elements outlined are comprehensive, though, whether there is an independent FSO or competencies remain within the separate Gas and Electricity SOs, an international element needs to be explicitly mandated. This is to ensure security of supply and the facilitation of cross border trade. For example, in creating obligations to ensuring the SO/FSO keeps under review relevant developments in the energy sector. This should include cross border elements, in particular developments within adjacent countries. Similarly a clear obligation to cooperate and coordinate with system operators in connected markets.

16. Do you have views on the level of shareholding or control involving other 'energy interests' and the FSO at which a conflict of interest would become a concern?

See our response to question 14.

17. Are we considering the right implications of our proposals for Elexon and Xoserve?

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18. What is your view on the preferred implementation approach? Please explain why.

It is appropriate to consider a phased approach and only progress to next steps after careful assessment and evaluation. An initial phase should consider additional obligations and incentives. If, after evaluation, the desired results are not achieved, an independent FSO model could be created, firstly focusing on electricity. Given the case for including gas within the remit of any FSO is weaker at this stage, this should only be considered at a later stage with respect to networking planning and long term forecasting.

19. Based on the areas where we are considering new and enhanced roles and functions for the FSO, which of these should be prioritised for development? Please explain why.

All the elements can be argued to be critical, however establishing the framework and processes to deliver system planning/ network development are important elements. They are vital building blocks to "whole system" thinking. Appropriate strategic direction, market design and rules to ensure competition (i.e. via tenders) however should be within the competency and scope of BEIS and Ofgem. It is important, in this context, that government provide clarity and policy on how the energy system should be developed in terms of balancing choices on security of supply, sustainability and affordability.

20. What do you believe are the risks to implementation? How can these be mitigated?

We reiterate our view that any SO model should remain advisory, to Government for policy/legislative development and responsibility for security of supply, and to Ofgem as the economic regulator. It will be important to provide clarity to all stakeholders about the specific roles and responsibilities of the relevant parties.

It will also be important, in taking this issue forward, that BEIS/Ofgem avoids uncertainty in the institutional framework to avoid internal and external stakeholders not progressing objectives as ambitiously as they otherwise might have.

The risk of inefficiencies due to duplication must also be mitigated to the extent possible. As noted earlier obligations/incentives on the involved parties to cooperate with each other to produce common outputs could meet the desired objectives.

21. Do you have any comments on potential implications of implementation for you, your organisation, or other stakeholders?

We hope whole system thinking can encourage more aligned consideration and recommendations in the treatment of electricity and gas interconnectors i.e. recognising the importance of interconnectors to facilitate cross border trade and security of supply. We hope, whatever model is chosen, there is recognition of the importance of gas in the transition to net zero and delivering energy security.

As a relatively small company in terms of human resources, it is vital the new model does not create/duplicate processes and interface requirements. We wish to note Interconnector, as an adjacent TSO to NGG and a cross border connection between the GB and Continent, has many interfaces with NGG (adjacent terminals, operational interface, flow planning, gas quality, maintenance planning, commercial, regulatory as well as more long term items on network development and enabling hydrogen etc). We are concerned that, depending on the roles and responsibilities of any FSO, these interfaces may become unclear and more complex. This should be avoided to ensure effective engagement can continue.

As outlined earlier, providing clarity and transparency about the roles of the SOs in relation to BEIS, Ofgem and National Grid will be a necessary condition for successfully meeting objectives.

- 22. What is your view on the position there are likely to be cost savings across the energy system from an increased “whole system” view, as described in paragraphs 47-52 of the IA? If so, is the potential magnitude of savings illustrated fairly in the IA? If not, why not?**

As noted earlier, we believe enhanced obligations/incentives on the ESO and NGG , in terms of coordination and cooperation, can increase and meet whole system thinking objectives.

- 23. What is your view on the conclusion that policy intervention is likely to increase the benefits of onshore electricity network competition, as described in paragraphs 53-59 of the IA? If you agree, is the potential magnitude of savings illustrated fairly in the IA? If not, why not?**

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- 24. Do you think that the impact assessment has identified and considered the key costs and benefits of policy intervention? If not, can you provide details on other impacts that have not been considered?**

The IA assessment is well considered. Clearly it is a challenge to quantify all of the benefits. We would support an assessment of an initial step to assess the merits of imposing additional objectives/incentives on the SOs.

- 25. Do you think that the distribution of impacts is fairly represented, with impacted groups correctly identified? Outlined in table 5 of the IA.**

Yes.

- 26. We invite respondents' views on whether the proposals for energy system governance reform may have a different impact on people who have a protected characteristic (age, disability, gender re-assignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation), in different ways from people who don't have that characteristic.**

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- 27. Please provide any evidence that may be useful to assist with our analysis of policy impacts.**

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